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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

HAJNIK, DANIEL F

ART UNIT	PAPER NUMBER
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2628

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/27/2006	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/27/2006.

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Office Action Summary	Application No.	Applicant(s)	
	10/611,871	KONYA ET AL.	
	Examiner	Art Unit	
	Daniel F. Hajnik	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-13, 15-30 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-13, 15-30 and 32-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 16, 17, 21, 24-26, and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by Shuji (Japanese Patent Application Publication 2002-077944, herein referred to as “Shuji”).

As per claim 17, Shuji teaches the claimed:

a pickup device picking up a two dimensional image data of a subject;

By teaching of objective lens 101 inside a camera 100 (see figure 1 and paragraph [0031] of English translation) and by teaching of “the photoed image of two sheets” (paragraph [0021] of English translation) where an image sheet is 2 dimensional.

Shuji teaches the claimed:

a three dimensional image creation portion obtaining display data for three dimensional display, the display data including image data for a right eye and for a left eye, wherein said three dimensional image creation portion includes,

By teaching of :

It is characterized by consisting of a **3-dimensional scenography generation means** to give different parallax to each part of a photographic subject, and to generate the 3-dimensional scenography of a photographic subject, (paragraph [0010] of English translation)

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display

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120, and for **left eyes makes shift a pixel from the image of Hara to right and left**"

(paragraph [0038] of English translation)

Here, accordingly to the reference, display data for the left eye and right eye are included.

Shuji teaches the claimed:

a first data process means for generating three dimensional data derived from the two dimensional data; and

By teaching of:

It is characterized by consisting of a **3-dimensional scenography generation means to give different parallax** to each part of a photographic subject, and **to generate the 3-dimensional scenography of a photographic subject**,

(paragraph [0010] of English translation)

Here, the photographic subject is two-dimensional and then is converted into a three-

dimensional image.

Shuji teaches the claimed:

a second data process means for converting the three dimensional data into the image data for the right eye and the image data for the left eye;

By teaching of:

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display 120, and for **left eyes makes shift a pixel from the image of Hara to right and left**"

(paragraph [0038] of English translation)

Shuji teaches the claimed:

a display unit displaying an image for the three dimensional display based on the display data.

By teaching of:

the image for right eyes and the image for left eyes **are generated by 3-**

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dimensional scenography generation equipment 141 based on the above-mentioned principle, and **those images are displayed on a head-mounted display 120.**

(paragraph [0037] of English translation)

As per claim 16, the reasons and rationale for the rejection of claim 17 is incorporated herein.

Shuji teaches the claimed:

wherein said parallax information portion calculates said parallax information based on the intensity of light reflected from the subject and on a distance between human eyes

By teaching of:

What consists of an operation means **to compute the distance from the luminescence location** of each part by the operation **based on the ratio of the reflectivity of each part to which each reflected light image** independently photoed with the image pick-up means

(paragraph [0016] of English translation)

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display 120, and for **left eyes makes shift a pixel from the image of Hara to right and left"**

(paragraph [0038] of English translation)

This shows a binocular-vision image by seeing the photograph which is a right eye and took the photograph which took the photograph which **photoed spacing equivalent to the parallax of human being's both eyes**

(paragraph [0003] of English translation)

As per claim 21, Shuji teaches the claimed:

21. (Previously Presented) The mobile equipment of claim 17, wherein said pickup device is a single pickup device.

By teaching of objective lens 101 inside one camera 100 (see figure 1 and paragraph [0031] of

English translation).

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As per claim 24, Shuji teaches the claimed:

24. (Previously Presented) The mobile equipment of claim 17, further comprising a three dimensional shutter button to pick up the two dimensional image data, wherein said three dimensional image creation portion obtains the display data in response to press of said three dimensional shutter button.

By teaching of

The computer 240 in which the image sensor 202 in an endoscope 200 had the function **which controls the function which outputs the signal** which usually **computed and imaged a picture signal** and distance distribution information based on the image of two sheets photoed through the objective lens 201, and the whole endoscope equipment, It usually consists of the image and the 3-dimensional scenography generation equipment 241 **which generates 3-dimensional scenography** (paragraph [0047] of English translation)

Here, the shutter button is the control that creates the three dimensional image.

As per claim 25, Shuji teaches the claimed:

25. (Previously Presented) The mobile equipment of claim 17, further comprising

a dividing portion for dividing the two dimensional image data picked up by said pickup device into a plurality of blocks; and

a detecting portion for detecting the brightness of each of said plurality of blocks, wherein

said three dimensional image creation portion generates the display data in response to the brightness of each of said plurality of blocks.

By teaching of

From a formula, since a known value and W_r are calculated from the ratio of **the brightness of each pixel** of the photoed image of two sheets, L_1 , L_2 , and L **can acquire the distance R_1** to a photographic subject.
(paragraph [0021] of English translation)

A 3-dimensional scenography generation means is good as what has possible **changing the magnitude of parallax**, and you may also enable it to determine the magnitude of parallax further in the image equipment by this invention **according to the dilation ratio of the image displayed on a display means**. (paragraph [0024] of English translation)

Here, the image is divided into a plurality of blocks (pixels) where the brightness is detected for each block (because the brightness of each pixel is considered). Further, the display creates parallax. Since the parallax is based upon distance to the photographed subject (and thus the distance based on the brightness by which this distance is calculated from) the display also depends upon the brightness detected.

As per claim 26, Shuji teaches the claimed:

26. (Previously Presented) The mobile equipment of claim 17, further comprising
a radiation unit illuminating the subject with light; and
a detection portion detecting the intensity of the light,
wherein said three dimensional image creation portion obtains the display data in response to the intensity of the light.

By teaching of

Mostly light for said **distance acquisition means** at coincidence from two or more luminescence locations where the **emission irradiation** ranges to a photographic subject differ to the image equipment by this invention Moreover, **the exposure means which can irradiate a photographic subject**, What consists of an operation means to compute the distance from the luminescence location of each part by the operation **based on the ratio of the reflectivity of each part to which each reflected light image independently photoed with the image pick-up means** which can be photoed independently in the reflected light image from the photographic subject by the light from each luminescence location of an exposure means corresponds may be used.

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(paragraph [0016] of English translation)

Here, the reference teaches of a radiation unit (exposure means which can irradiate a photographic subject) and teaches of a detecting portion (reflected light photoed and image pick-up means), and teaches of display data in response to the intensity of the light by teaching of a distance acquisition means (where the distance is later used to create parallax on the display). Further, since the system is considering the reflectivity of each part due to emission irradiation this reflectivity is also intensity of the light.

As per claim 29, the reasons and rationale for the rejection of claim 17 is incorporated herein.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-13, 22, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuji in view of Aoki et al. (US Publication 2002/0054032, herein referred to as "Aoki").

As per claim 7, the reasons and rationale for the rejection of claims 17 and 21 are incorporated herein in regards to the claimed "single pickup device". The reasons and rationale for the rejection of claim 17 is incorporated herein in regards to the claimed "display unit".

Shuji teaches the claimed:

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a parallax information portion determining parallax information of said subject based on a distance between human eyes;

By teaching of :

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display 120, and for **left eyes makes shift a pixel from the image of Hara to right and left**"

(paragraph [0038] of English translation)

Here, in order for the pixel shifting between the left and right eye views to occur the system would have to have the parallax information based on the distance between human eyes (i.e. a standard average distance). Further, Shuji teaches of prior art where the claimed limitation is used by teaching of:

This shows a binocular-vision image by seeing the photograph which is a right eye and took the photograph which took the photograph which **photoed spacing equivalent to the parallax of human being's both eyes**

(paragraph [0003] of English translation)

Similarly, the present application teaches using a similar technique by teaching of:

Processor 105 then provides the three dimensional data with parallax information (S406). At step S406 processor 105 performs **an approximate calculation based on a standard distance between human both eyes** (e.g., approximately 6 cm) (pg. 10, lines 9-11 of specification)

Shuji teaches the claimed:

a three dimensional image creation portion creating a three dimensional image by applying said parallax information to said image; and

By teaching of:

It is characterized by consisting of a **3-dimensional scenography generation means to give different parallax** to each part of a photographic subject, and to generate the 3-dimensional scenography of a photographic subject, (paragraph [0010] of English translation)

Shuji does not explicitly teach the claimed:

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wherein said three dimensional image creation portion cuts a human face out of said image picked up, to obtain a face image

Aoki teaches the claimed limitation in figures 7A-7C.

Lastly, the claimed “and provides said face image with said parallax information” can be achieved through the combination of Shuji and Aoki where Shuji provides the parallax information which can be applied to the face image of Aoki.

It would have been obvious to one of ordinary skill in the art to combine Shuji and Aoki. Aoki teaches one advantage of the combination by teaching of “a data transmission method able to realize communication in a state where eye contact is maintained” (paragraph [0015]) where Shuji would benefit from such added functionality through entertaining and interesting communication.

As per claim 8, Shuji teaches the claimed:

8. (Original) The mobile equipment of claim 7, wherein said pickup device is a pickup device for picking up a two dimensional image.

By teaching of “the photoed image of two sheets” (paragraph [0021] of English translation) where an image sheet is 2 dimensional.

As per claim 9, Shuji does not explicitly teach the claimed:

9. (Original) The mobile equipment of claim 8, further comprising:
a communication control portion controlling a communication with another device; and

Aoki teaches the claimed limitation in figure 1, 22.

Shuji does not explicitly teach the claimed:

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a transmission and reception portion allowing a call to and from another device.

Aoki teaches the claimed limitation in figure 1, 25. It would have been obvious to one of ordinary skill in the art at the time of invention to use the claimed feature as disclosed in Aoki with Shuji. One advantage to such features is the ability to communicate with other users effectively.

As per claim 10, the reasons and rationale for the rejection of claim 7 is incorporated herein.

Shuji teaches the claimed:

and provides said image of the subject and an image included in said image picked up other than said particular subject with different parallax information, respectively.

By teaching of:

It is characterized by consisting of a 3-dimensional scenography generation **means to give different parallax to each part of a photographic subject** (paragraph [0010] of English translation)

where Shuji can perform different parallax for the particular subject (a part of the photographic subject).

Shuji does not explicitly teach the claimed:

wherein said three dimensional image creation portion selects a particular subject from said image picked up, to obtain an image of the subject

Aoki teaches the claimed limitation in figures 7A-7C by teaching of selecting a subject's face portion. It would have been obvious to one of ordinary skill in the art at the time of invention to use the claimed feature as disclosed in Aoki with Shuji. Aoki teaches one advantage of selecting the face portion by teaching of "a data transmission method able to realize communication in a

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state where eye contact is maintained” (paragraph [0015]) where selecting the face makes the communication process more realistic through the display.

As per claims 11-13, these claims are similar in scope to those of claims 8, 9, 7, respectively, and are rejected under the same rationale.

As per claim 22, the reasons and rationale for the rejection of claim 9 is incorporated herein.

As per claim 27, Shuji teaches the claimed:

said three dimensional image creation portion further includes a selection data process means for generating the two dimensional image data of the subject in response to the selection.

By teaching of

had the function **which controls the function which outputs the signal** which usually computed and imaged a picture signal ... It usually consists of the image and the 3-dimensional scenography generation equipment 241 **which generates 3-dimensional scenography** (paragraph [0047] of English translation)

Shuji does not explicitly the claimed:

operation keys for receiving an input for selection of a subject from the background in the two dimensional image displayed on said display unit, wherein

Aoki teaches the claimed limitation by teaching of:

Cut out on the terminal according to the instructions of the user (paragraph [0041]) (selection of a subject)

the entire image input from the imaging means, that is, the camera, is output for the image on the monitor of user. The user specifies a region of the image to cut out that region

(paragraph [0044])
(selection of a subject)

It would have been obvious to one of ordinary skill in the to use Aoki with Shuji, Aoki teaches one advantage of using the claimed feature by teaching of “a data transmission method able to realize communication in a state where eye contact is maintained” (paragraph [0015]) where selecting the image adds more customized functionality to the eye contact feature. In addition, the user may find the selection process more interesting than using an automated selection process.

As per claim 28, Shuji does not explicitly teach the claimed:

28. (Previously Presented) The mobile equipment of claim 27, wherein said operation keys receive inputs for the selection of a plurality of subjects and said selection data process means generates the two dimensional image data for each of the selected subjects.

Aoki teaches the claimed limitation in figure 1 where a plurality of face images (selected subjects) are shown on screen 23. It would have been obvious to use this feature of Aoki with Shuji in order for the user see both them self and the person you are talking to on the phone at the same time.

5. Claims 15 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuji in view of Pavlidis et al. (US Patent 6995762, herein referred to as “Pavlidis”).

As per claim 15, the reasons and rationale for the rejection of claim 17 is incorporated herein.

Shuji does not explicitly teach the claimed:

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wherein said parallax information portion calculates said parallax information based on the differences in the brightness between parts of the image

Pavlidis teaches the claimed limitation by teaching of capturing a two-image and applying an image analyzer to determine distance information and extract 3D data from the image (col 5, lines 48-56. One of ordinary skill in the art would recognize that this distance information and 3D object extraction is also parallax data because parallax data is related to the distance of objects moving against a background in the image, which the system of Pavlidis can determine through image analysis. Furthermore, the image analysis is performed by analyzing brightness differences between blocks in the image (see figure 11, steps 1120, 1140, 1150, and 1160). It would have been obvious to one of ordinary skill in the art at the time of invention to combine Shuji with Pavlidis. Pavlidis teaches the advantage of the combination by teaching of finding three-dimensional data from a camera located on a mobile phone (col 3, lines 25-31 and col 5, lines 41-45) where Shuji would benefit from the precise image data and image borders extracted by Pavlidis.

As per claim 30, Shuji teaches the claimed:

wherein said parallax information of said subject is determined based on a distance between human eyes;

By teaching of :

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display 120, and for **left eyes makes shift a pixel from the image of Hara to right and left**"
(paragraph [0038] of English translation)

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Here, in order for the pixel shifting between the left and right eye views to occur the system would have to have the parallax information based on the distance between human eyes (i.e. a standard average distance).

6. Claims 18-20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuji in view of Taniguchi et al. (US Patent 6940646, herein referred to as "Taniguchi").

As per claim 18, Shuji does not explicitly teach the claimed "switching liquid crystal element". Taniguchi teaches the claimed limitation by teaching of "liquid crystal shutter" (col 2, line 56) and by teaching of "switching of parallax images" (col 2, line 36).

Shuji does not explicitly teach the claimed "deflection angle and patterned phase difference". Taniguchi teaches the claimed limitations by teaching of "guiding display light" (col 2, line 21), "a phase plate with a phase difference" (col 14, lines 37-38), and by teaching of "a checkered pattern" (col 14, line 60).

Shuji does not explicitly teach the claimed "controlling portion". Taniguchi teaches the claimed limitation by teaching of "to control a phase shift state for each block" (col 14, lines 37-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Shuji and Taniguchi. One advantage to the combination is provided by Taniguchi, which teaches of displaying a high resolution stereoscopic image without flicker and without special spectacles (col 2, lines 13-16) for parallax images for each of the left and right eyes (col 2, line 2). Shuji would benefit from such added functionality.

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As per claim 19, Shuji does not explicitly teach the claimed "prevent an image ... from passing through the pixels". Taniguchi teaches the claimed limitation by teaching of "liquid crystal shutter" (col 2, line 56) where a shutter would require the use of preventing an image from passing for a given time. It would have been obvious to one of ordinary skill in the art to use this feature Taniguchi with Shuji in order to create a 3D effect on the screen, which can be desirable to the user.

As per claim 20, Shuji does not explicitly teach the claimed "operation keys receiving an input, wherein said controlling portion changes the relationship based on the input".

Taniguchi teaches of a "driving device" (pieces 11 and 12) and "image forming device" (piece 10) in figure 28. Given these teachings, it would have been obvious to one of ordinary skill in the art to use the claimed limitation because the operation keys would provide a convenient and readily known way for the user to control the driving and image forming device.

7. Claims 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuji in view of Tao et al. (US Patent 5818463, herein referred to as "Tao").

As per claim 32, Shuji does not explicitly teaches the claimed:

a memory for storing a face geometry model ... wherein said first data process means generates the three dimensional data from the human face image data based on the face geometry model.

Tao teaches these claimed limitations by teaching of:

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The viability of this invention has demonstrated **by animating the quadrangular face model using facial animation parameters** for facial expression and visual speech.

(col 5, lines 18-20)

(face geometry model)

wireframe synthesizer 212 takes the output of **the local memory in a mesh encoder 216**, decodes it, and generates a reconstructed mesh of the object

(col 4, lines 35-37)

(memory for storing a face geometry model)

It would have been obvious to one of ordinary skill in the art to combine Shuji and Tao. One advantage to using this feature of Tao with Shuji is to provide a standard and well-proven method of animating face features (col 1, lines 60-61 of Tao) on a display where the animation can enhance the display and output of Shuji.

As per claim 35, this claim is similar in scope to claim 32, and thus is rejected under the same rationale.

8. Claim 23, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuji in view of Aoki in further view of Tao.

As per claim 23, the reasons and rationale for the rejection of claim 7 is incorporated herein in regards to the claimed “extracting a human face image data” and the reasons and rationale for the rejection of 32 is incorporated herein in regards to the claimed “memory for storing a face geometry model”.

It would have been obvious to one of ordinary skill in the art to combine Shuji, Aoki, and Tao. One advantage to using this feature of Tao with Shuji and Aoki is to provide a standard and

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well-proven method of animating face features (col 1, lines 60-61 of Tao) on a display where the facial animation can enhance the display and output of Shuji.

As per claims 33 and 34, these claims are both similar in scope to claim 23, and thus are rejected under the same rationale.

Response to Arguments

9. Applicant's arguments filed 10/11/2006 have been fully considered but they are not persuasive. Applicant argues that Shuji does not teach finding parallax information for each block based on the brightness where the brightness of the image is differences in brightness between different parts of the image (top of page 12 of remarks). The examiner respectfully maintains that this argument is moot in view of new grounds of rejection for claim 15.

Applicant argues that there is no teaching of the single camera approach of Shuji for determining parallax based on the distance between human eyes (top of page 13 of remarks). Further, applicant argues that Shuji does not teach the claimed generating three-dimensional data (towards middle of page 13 of remarks). In further related arguments, applicant argues that Shuji does not disclose that parallax of a photographic subject is determined based on a distance between human eyes (towards bottom of page 17 of remarks).

The examiner respectfully maintains that the prior art rejection is proper because Shuji teaches of using a single camera in the abstract where the reference states "The stereoscopic imaging device obtains an image having a parallax from a viewpoint for photographing a normal image ... a stereoscopic image generator 141 according to a direction for moving the viewpoint,

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based on the normal image photographed by camera 100". Shuji teaches of generating three-dimensional data by teaching of "It is characterized by consisting of a 3-dimensional scenography generation means to give different parallax to each part of a photographic subject, and to generate the 3-dimensional scenography of a photographic subject" (paragraph [0010] of English translation). Further, Shuji teaches of determining the parallax in part from the distance between human eyes and distance information by teaching of shifting pixels to create a parallax affect:

The amount to which the **amount which the image the object for right eyes** which constitutes the binocular vision image displayed on a head-mounted display 120, and for **left eyes makes shift a pixel from the image of Hara to right and left ... shifts each pixel with the magnitude of parallax on either side is further multiplied by the multiplier**"
(paragraph [0038] of English translation)

Here, the reference teaches of considering the shifting amount based upon the distance between human eyes to determine the parallax of a photographed subject. This is further explained in paragraph [0003] of English translation where the references teaches of spacing a photograph based upon the standard distance between human eyes. Lastly, the applicant's present application teaches using a similar technique by teaching of:

Processor 105 then provides the three dimensional data with parallax information (S406). At step S406 processor 105 performs **an approximate calculation based on a standard distance between human both eyes** (e.g., approximately 6 cm)
(pg. 10, lines 9-11 of specification)

Lastly, applicant argues that there is no nexus between teachings in Shuji and teachings in Tao (towards top of page 19 of remarks), argues that there is no teaching of Shuji generating three dimensional data (middle of page 19 of remarks), and argues that there is no generating three dimensional data based on a face geometry model in Tao (towards middle of page 19 of

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remarks). The examiner respectfully maintains that the prior art rejection is proper because both Shuji and Tao teach of generating and displaying three-dimensional images (see paragraphs [0010] and [0011] of the English translation of Shuji and, col 2, lines 54-58 and col 5, lines 19-23 of Tao), and further the combination is provided with motivation to combine. Shuji teaches the claimed generating three dimensional data in paragraph [0010] of the English translation and Tao teaches of generating three dimensional data based on a face geometry model in col 4, lines 28-29 and col 5, lines 18-20.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel F. Hajnik whose telephone number is (571) 272-7642. The examiner can normally be reached on Mon-Fri (8:30A-5:00P).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka J. Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Daniel Hajnik 12/20/06

DFH


ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER